BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP (303) 740-1980
Title: A Method and Apparatus for Hardware Data Speculation to Support
Memory Optimizations
Inventor: Menon et al.
Filing Date: Concurrently Herewith
Express Mail Label No.: EL962312025US
Shaet: 1 of 5

Sheet: 1 of 5

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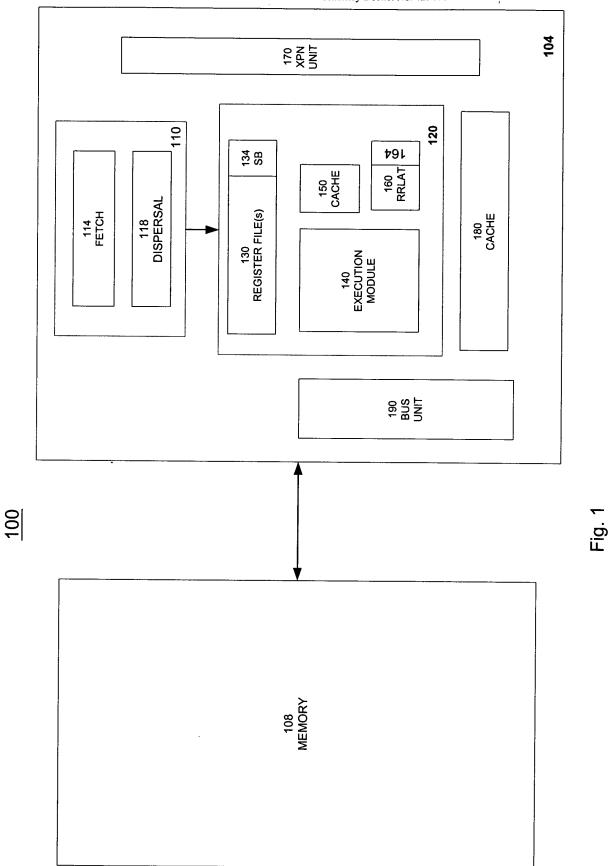


Fig. 2

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```
// p and q may refer to the same object;
// p.x initially 0;
t1 = Id [p.x];
...
// Another thread writes to q.x the value 1
t2 = Id [q.x];
t3 = Id [p.x];
```

Fig. 3a

```
// p and q may refer to the same object;
// p.x initially 0;

t1 = Id [p.x];
...
// Another thread writes to q.x the value 1

t2 = Id [q.x];
t3 = t1;
```

Fig. 3b

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Sheet: 4 of 5

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```
// p and q may refer to same object;
// p.x initially 0;

t1 = Id.rr [p.x]
// Another thread writes to q.x the value 1;

t2 = Id [q.x]
t3 = t1;
...
check.rr t1, recover
back:
...
recover:
t3 = Id [p.x]
...
br back
```

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